

24. (Currently Amended) The method of Claim 23, wherein said automatically controlling an environment of an inhalant chamber comprises:

maintaining an environmental factor via feedback control, wherein the environmental factor includes a pressure of the inhalant chamber.

25. (Deleted)

26. (Deleted)

27. (Original) The method of Claim 23, wherein said automatically controlling a concentration of an inhalant in the inhalant chamber comprises:

dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices.

28. (Deleted)

29. (Deleted)

30. (Deleted)

31. (Deleted)

32. (Original) The method of Claim 23 further comprising:
displaying near real time measurement data related to an animal in the inhalant chamber.

33. (Currently Amended) The method of Claim 32, wherein said displaying near real time measurement data related to an animal in an inhalant chamber comprises:
displaying animal-related respiration data.

34. (Currently Amended) The method of Claim 32, wherein said displaying near real time measurement data related to an animal in an inhalant chamber comprises:
displaying a pressure of the inhalant chamber.

35. (Original) A system comprising:
means for automatically controlling an environment of an inhalant chamber; and
means for automatically controlling a concentration of an inhalant in the inhalant chamber.

36. (Currently Amended) The system of Claim 35, wherein said means for automatically controlling an environment of an inhalant chamber comprises:
maintaining an environmental factor via feedback control, wherein the environmental factor includes a pressure of the inhalant chamber.

37. (Deleted)

38. (Deleted)

39. (Original) The system of Claim 35, wherein said means for automatically controlling a concentration of an inhalant in the inhalant chamber comprises:
means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices.

40. (Deleted)

41. (Deleted)

42. (Deleted)

43. (Deleted)

44. (Original) The system of Claim 35 further comprising:
means for displaying near real time measurement data related to an animal in the
inhalant chamber.

45. (Currently Amended) The system of Claim 44, wherein said means for
displaying near real time measurement data related to an animal in an inhalant chamber
comprises:

means for displaying animal-related respiration data.

91 46. (Currently Amended) The system of Claim 44, wherein said means for
displaying near real time measurement data related to an animal in an inhalant chamber
comprises:

means for displaying a pressure of the inhalant chamber.

66. (New) The method of Claim 24, wherein said maintaining an
environmental factor via feedback control, wherein the environmental factor is a pressure of the
inhalant chamber comprises:

controlling the environmental factor via monitoring a pressure sensor of the
inhalant chamber.

92 67. (New) The method of Claim 66, wherein said controlling the
environmental factor via monitoring a pressure sensor of the inhalant chamber comprises:

controlling the environmental factor via a Proportional Integral Derivative (PID)
controller receiving input from the pressure sensor and adjusting a pressure driver.

68. (New) The method of Claim 23, wherein said automatically controlling an
environment of an inhalant chamber comprises:

maintaining an environmental factor via feedback control, wherein the
environmental factor is a temperature of the inhalant chamber.

69. (New) The method of Claim 68, wherein said maintaining an environmental factor via feedback control, wherein the environmental factor is a temperature of the inhalant chamber comprises:

controlling the environmental factor via monitoring a temperature sensor.

70. (New) The method of Claim 69, wherein said controlling the environmental factor via monitoring a temperature sensor comprises:

controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the temperature sensor and adjusting a temperature driver.

71. (New) The method of Claim 23, wherein said automatically controlling an environment of an inhalant chamber comprises:

maintaining an environmental factor via feedback control, wherein the environmental factor includes a humidity of the inhalant chamber.

72. (New) The method of Claim 71, wherein said maintaining an environmental factor via feedback control, wherein the environmental factor includes a humidity of the inhalant chamber comprises:

controlling the environmental factor via monitoring a humidity sensor.

73. (New) The method of Claim 72, wherein said controlling the environmental factor via monitoring a humidity sensor comprises:

controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the humidity sensor and adjusting a humidity driver.

74. (New) The method of Claim 23, wherein said automatically controlling an environment of an inhalant chamber comprises:

maintaining an environmental factor via feedback control, wherein the environmental factor includes an airflow in to the inhalant chamber.

75. (New) The method of Claim 74, wherein said maintaining an environmental factor via feedback control, wherein the environmental factor includes an airflow in to the inhalant chamber comprises:

controlling the environmental factor via monitoring an input airflow sensor.

76. (New) The method of Claim 75, wherein said controlling the environmental factor via monitoring an input airflow sensor comprises:

controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the input airflow sensor and adjusting an input airflow driver.

77. (New) The method of Claim 23, wherein said automatically controlling an environment of an inhalant chamber comprises:

maintaining an environmental factor via feedback control, wherein the environmental factor includes an exhaust airflow out of the inhalant chamber.

78. (New) The method of Claim 77, wherein said maintaining an environmental factor via feedback control, wherein the environmental factor includes an airflow out of the inhalant chamber comprises:

controlling the environmental factor via monitoring an exhaust output airflow sensor.

79. (New) The method of Claim 78, wherein said controlling the environmental factor via monitoring an exhaust output airflow sensor comprises:

controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the output airflow sensor and adjusting an exhaust output airflow driver.

80. (New) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having a wet aerosol form.

81. (New) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having a dry aerosol form.

82. (New) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having a gaseous substance form.

83. (New) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having a mist form.

84. (New) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having a fog form.

85. (New) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having a fume form.

86. (New) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

dispersing a substance having an airborne substance form.

87. (New) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

controlling the one or more inhalant dissemination devices via a Proportional Integral Derivative (PID) controller receiving input from a chamber pressure monitor.

88. (New) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

controlling the one or more inhalant dissemination devices via a Proportional Integral Derivative (PID) controller receiving input from an inhalant-concentration sensor.

89. (New) The method of Claim 27, wherein said dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

controlling the one or more inhalant dissemination devices via a Proportional Integral Derivative (PID) controller receiving input from a gas sensor.

90. (New) The method of Claim 23, wherein said automatically controlling a concentration of an inhalant in the inhalant chamber comprises:

controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant.

91. (New) The method of Claim 90, wherein said controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from an inhalant concentration sensor

92. (New) The method of Claim 90, wherein said controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from a gas sensor.

93. (New) The method of Claim 90, wherein said controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from an input airflow sensor.

A2 94. (New) The method of Claim 90, wherein said controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from an output airflow sensor.

95. (New) The method of Claim 32, wherein said displaying near real time measurement data related to an animal in an inhalant chamber comprises:

displaying animal-related dosimetry data.

96. (New) The method of Claim 32, wherein said displaying near real time measurement data related to an animal in an inhalant chamber comprises:

displaying a temperature of the inhalant chamber.

97. (New) The method of Claim 32, wherein said displaying near real time measurement data related to an animal in an inhalant chamber comprises:

displaying a humidity of the inhalant chamber.

98. (New) The method of Claim 32, wherein said displaying near real time measurement data related to an animal in an inhalant chamber comprises:

displaying an airflow into the inhalant chamber.

99. (New) The method of Claim 32, wherein said displaying near real time measurement data related to an animal in an inhalant chamber comprises:

displaying an airflow out of the inhalant chamber.

100. (New) The system of Claim 36, wherein said means for maintaining an environmental factor via feedback control, wherein the environmental factor is a pressure of the inhalant chamber comprises:

means for controlling the environmental factor via monitoring a pressure sensor of the inhalant chamber.

101. (New) The system of Claim 100, wherein said means for controlling the environmental factor via monitoring a pressure sensor of the inhalant chamber comprises:

means for controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the pressure sensor and adjusting a pressure driver.

102. (New) The system of Claim 35, wherein said means for automatically controlling an environment of an inhalant chamber comprises:

means for maintaining an environmental factor via feedback control, wherein the environmental factor is a temperature of the inhalant chamber.

103. (New) The system of Claim 102, wherein said means for maintaining an environmental factor via feedback control, wherein the environmental factor is a temperature of the inhalant chamber comprises:

means for controlling the environmental factor via monitoring a temperature sensor.

104. (New) The system of Claim 103, wherein said means for controlling the environmental factor via monitoring a temperature sensor comprises:

means for controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the temperature sensor and adjusting a temperature driver.

105. (New) The system of Claim 35, wherein said means for automatically controlling an environment of an inhalant chamber comprises:

means for maintaining an environmental factor via feedback control, wherein the environmental factor includes a humidity of the inhalant chamber.

106. (New) The system of Claim 105, wherein said means for maintaining an environmental factor via feedback control, wherein the environmental factor includes a humidity of the inhalant chamber comprises:

means for controlling the environmental factor via monitoring a humidity sensor.

107. (New) The system of Claim 106, wherein said means for controlling the environmental factor via monitoring a humidity sensor comprises:

means for controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the humidity sensor and adjusting a humidity driver.

108. (New) The system of Claim 35, wherein said means for automatically controlling an environment of an inhalant chamber comprises:

means for maintaining an environmental factor via feedback control, wherein the environmental factor includes an airflow in to the inhalant chamber.

109. (New) The system of Claim 108, wherein said means for maintaining an environmental factor via feedback control, wherein the environmental factor includes an airflow in to the inhalant chamber comprises:

means for controlling the environmental factor via monitoring an input airflow sensor.

110. (New) The system of Claim 109, wherein said means for controlling the environmental factor via monitoring an input airflow sensor comprises:

means for controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the input airflow sensor and adjusting an input airflow driver.

111. (New) The system of Claim 35, wherein said means for automatically controlling an environment of an inhalant chamber comprises:

means for maintaining an environmental factor via feedback control, wherein the environmental factor includes an exhaust airflow out of the inhalant chamber.

112. (New) The system of Claim 111, wherein said means for maintaining an environmental factor via feedback control, wherein the environmental factor includes an airflow out of the inhalant chamber comprises:

means for controlling the environmental factor via monitoring an exhaust output airflow sensor.

113. (New) The system of Claim 112, wherein said means for controlling the environmental factor via monitoring an exhaust output airflow sensor comprises:

means for controlling the environmental factor via a Proportional Integral Derivative (PID) controller receiving input from the output airflow sensor and adjusting an exhaust output airflow driver.

114. (New) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for dispersing a substance having a wet aerosol form.

115. (New) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

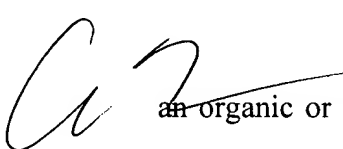
means for dispersing a substance having a dry aerosol form.

116. (New) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for dispersing a substance having a gaseous substance form.

117. (New) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for dispersing a substance having a mist form.

 118. (New) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for dispersing a substance having a fog form.

119. (New) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for dispersing a substance having a fume form.

120. (New) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for dispersing a substance having an airborne substance form.

121. (New) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for controlling the one or more inhalant dissemination devices via a Proportional Integral Derivative (PID) controller receiving input from a chamber pressure monitor.

122. (New) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

means for controlling the one or more inhalant dissemination devices via a Proportional Integral Derivative (PID) controller receiving input from an inhalant-concentration sensor.

123. (New) The system of Claim 39, wherein said means for dispersing either an organic or inorganic substance via electronic control of one or more inhalant dissemination devices comprises:

A2 means for controlling the one or more inhalant dissemination devices via a Proportional Integral Derivative (PID) controller receiving input from a gas sensor.

124. (New) The system of Claim 35, wherein said means for automatically controlling a concentration of an inhalant in the inhalant chamber comprises:

means for controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant.

125. (New) The system of Claim 124, wherein said means for controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

means for controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from an inhalant concentration sensor

126. (New) The system of Claim 124, wherein said means for controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

means for controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from a gas sensor.

127. (New) The system of Claim 124, wherein said means for controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

means for controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from an input airflow sensor.

128. (New) The system of Claim 124, wherein said means for controlling a flow rate out of the inhalant chamber in response to a specified dispensement of the inhalant comprises:

means for controlling the flow rate out of the inhalant chamber via a Proportional Integral Derivative (PID) controller receiving input from an output airflow sensor.

A2 129. (New) The system of Claim 44, wherein said means for displaying near real time measurement data related to an animal in an inhalant chamber comprises:

means for displaying animal-related dosimetry data.

130. (New) The system of Claim 44, wherein said means for displaying near real time measurement data related to an animal in an inhalant chamber comprises:

means for displaying a temperature of the inhalant chamber.

131. (New) The system of Claim 44, wherein said means for displaying near real time measurement data related to an animal in an inhalant chamber comprises:

means for displaying a humidity of the inhalant chamber.

132. (New) The system of Claim 44, wherein said means for displaying near real time measurement data related to an animal in an inhalant chamber comprises:

means for displaying an airflow into the inhalant chamber.

AZ 133. (New) The system of Claim 44, wherein said means for displaying near real time measurement data related to an animal in an inhalant chamber comprises:

means for displaying an airflow out of the inhalant chamber.